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PTO/SB/81 (02-01)

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Application Number	09/910,684
Filing Date	July 20, 2001
First Named Inventor	Michael Y.T. Hwang et al.
Title	Memory Control Apparatus and Efficient Search Pattern for Block-Matching Motion Estimation
Group Art Unit	2614
Examiner Name	
Attorney Docket Number	18170-002600US

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☒ Assignee of record of the entire interest. See 37 CFR 3.71.

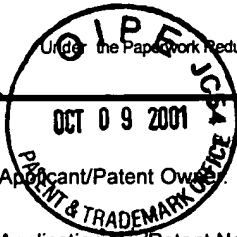
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

**SIGNATURE of Applicant or Assignee of Record**

Name	Robert C. McClelland
Signature	Robert C. McClelland
Date	9-25-01

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.



**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Michael Y.T. Hwang et al.

Application No./Patent No.: 09/910,684

Filed/Issue Date: July 20, 2001

Entitled: Memory Control Apparatus and Efficient Search Pattern for Block-Matching Motion Estimation

Divio, Inc., a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_  
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☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8]

The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the assignee.

9-25-01  
Date

Robert C. McClelland  
Signature

Robert C. McClelland  
Typed or printed name

CFO  
Title

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Michael Y.T. Hwang, of 54 Seabreeze Drive, Richmond, California 94804; Chung-Ta Lee, of 1262 Pome Avenue, Sunnyvale, California 94087; Yi Liu, of 7015 Bright Star Lane, Austin, Texas 78736; hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: **Memory Control Apparatus and Efficient Search Pattern  
for Block-Matching Motion Estimation**

Filing Date: **July 20, 2001**

Application No.: **09/910,684; and**

WHEREAS, Divio, Inc., a corporation of the State of California, located at 441 De Guigne Drive, Sunnyvale, California, 94085, hereinafter referred to as "Assignee," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.


Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 9-21-01

  
Michael Y.T. Hwang

Dated: 9/19/2001

  
Chung-Ta Lee

Dated: 9/19/2001

  
Yi Liu

Witnesses:

\_\_\_\_\_  
\_\_\_\_\_